## PROCEEDINGS

of the

# American Society

SOCIETY AFFAIRS

# Civil Engineers

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VOL. LII

SEPTEMBER, 1926 No. 7

items of interest:

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This Society is not responsible for any statement made or opinion expressed in its publications. Employment Service ......

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# SOCIETY AFFAIRS

## 1926 CONVENTION AT PHILADELPHIA IN OCTOBER

## Scene and Program Fit Sesqui-Centennial Exposition

The Fifty-Sixth Annual Convention of the Society to be held in Philadelphia, Pa., October 4-9, 1926, gives early promise of being an outstanding meeting. A whole week will be devoted to important topics and sessions.

Being held during the progress of the Sesqui-Centennial Exposition in Phila-delphia, in commemoration of the 150th Anniversary of the Signing of the De-claration of Independence, the Convention has fittingly been planned to include

a review of engineering advancement.

The general sessions as well as the meetings of the Technical Divisions will review the history of the progress of engineering during the past one hundred and fifty years and the growth of its influence in public affairs.

#### A Week's Program

Contrary to the usual custom, the Convention will be formally opened on a Monday (October 4), and will continue through Saturday, October 9, thus furnishing ample time for the various sessions and some to spare for the Sesqui-Centennial itself. Not the least of the anticipated pleasures is the opportunity for members and visitors to see the many local points of engineering and historical interest.

The general sessions will be held during the mornings of Monday and Tuesday, October 4 and 5. Thanks to the joint attraction of the Convention and the Exposition, it is expected that men of international prominence representing several of the foreign engineering societies will address the meeting.

The Technical Division sessions will occupy the mornings of Wednesday, Thursday, and Friday, October 6, 7, and 8, and will also include papers reviewing the history of the accomplishments in their particular fields, in addition to subjects dealing with present-day developments and problems.

According to present plans, all the afternoons during the week will be given over the convenience and visit to be seen

over to excursions and visits to local points of interest, and the evenings to social affairs. On Saturday, October 9, excursions of interest to members and their ladies will close the Convention.

## Local Section Conference

As one of the important events of the Convention, particular mention should be made of the Annual Conference of Local Section Representatives which will be held on Wednesday, October 6. The Committee on Local Sections is now engaged in considering the program in the light of the suggestions from the various Sections and a comprehensive discussion of matters relating to Section and Society activities is anticipated.

Minor details of the meeting are yet to be settled. This brief outline, how-ever, will give an idea of the pleasures in store for any member. The importance of these events, the convenience of the season, and the attendant local attractions bid fair to draw a record-attendance and insure an unusual meet-

The final program is being perfected and will be issued to the membership during September.

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## Political Solicitation of Engineering Employees Condemned

Report of the Committee on Professional Conduct as Approved by the Board of Direction, July 12, 1926

TO THE BOARD OF DIRECTION,
AMERICAN SOCIETY OF CIVIL ENGINEERS,

New York, N. Y.

SIRS.—On a statement of facts as here given your Committee on Professional Conduct submits its conclusions as below noted.

A Governor is charged with having appropriated to his own use interest on State funds which it is claimed rightfully belonged to the State. This was done prior to his having become Governor, while serving the State in the capacity of State Treasurer.

In converting to his own use the interest allowed by the banks on money deposited by the State Treasurer, he was, it is understood, following precedent. It appears to have been an established practice of the Treasurer to regard all interest earned as a perquisite belonging to the incumbent of the office. The amount involved is large, possibly more than a million dollars

than a million dollars.

The matter having been taken into the Courts it was determined that the money had been wrongfully taken and must be returned to the State. The decision of the Lower Court in this matter has been sustained by the Supreme Court of the State.

In these circumstances the Governor sent out an appeal to those in the service of the State to contribute to a so-called defense fund. It is not known in what form this appeal was made. However, it has reached the engineer employees of the State Highway Department with the suggestion that contributions would be acceptable.

Directly or indirectly it has been intimated that a fair contribution would be a month's salary or half a month's salary, as the case may be. The party to whom payments of these voluntary contributions are to be made is the Personnel Officer of the Department. The announcement that such contributions to the defense fund are desired was made by an engineer, a member of the American Society of Civil Engineers holding high rank in the Engineering Staff of the Department.

Having given these facts consideration the Committee holds that any solic-

itation of funds or any suggestion that money should be contributed for such a personal or political purpose, coming from the head of the Department was wrong and reprehensible. No such request could be presented from above, even though couched in terms to make contributions appear voluntary, without carrying with it an implied threat.

The Committee recommends, therefore, that all members of the profession who have thus been solicited ignore the request, and it takes this occasion to condemn such practices most emphatically. If it should happen that failure to respond to the request for contributions results in discharge or other unfair treatment of members of this Society then suitable action should be taken for redress, with assurance that this Society will give such support as circumstances permit.

stances permit.

The Committee further recommends that its findings in this matter be given publicity in the *Proceedings*.

C. E. GBUNSKY,
A. J. HAMMOND,
GEORGE S. WEBSTER,
Committee.

## Examples of Unprofessional Conduct

Two specific cases have recently been considered by the Board of Direction involving unethical activities of members of the Society. In both of these the Board expressed its strong disapproval and communicated its views direct to the men concerned. The causes of these actions are here briefly summarized in abstract to illustrate particularly the principles involved.

Complaint was made that a member of the Society had unduly criticized in the public press a fellow engineer's official public acts. The tone of the criticism was felt to be satirical and undignified—in other words unbecoming to an engineer. The Board of Direction concurred with the Committee on Professional Conduct in its disapproval of such conduct

The second instance has to do with advertising. A member issued a circular listing a large number of projects in which he had been engaged, the importance and number of these works apparently giving the impression of the wide scope and responsibility of the engineer's work. By its failure to be explicit, the circular did not indicate the fact that on many of these engagements the engi-

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neer's work was subordinate only. The Board's action gave approval of proper reference to engineering experience, offered to a prospective client, but condemned "exaggeration and misinterpretation in any advertising material as deserving severe censure."

## Further Student Prize Winners

The August *Proceedings* listed the names of fourteen graduating students who have been awarded prizes of Junior Membership in the Society by various Local Sections. This list may now be augmented by the following four names:

Eugene C. Bray (University of Illinois), Central Illinois Section.

Charles F. Hendrick (University of Illinois), Central Illinois Secton.

Raymond William Renn (University of Cincinnati), Cincinnati Section.

Paul J. Smith (University of Pennsylvania), Philadelphia Section.

## New Student Chapters

The Board of Direction at its meeting in Seattle, Wash., on July 12, approved the applications for Student Chapters of the Society in the following engineering schools: University of Arizona, Tucson, Ariz.; Michigan State College, East Lansing, Mich.; and Princeton University, Princeton, N. J.

## Copying the Society Badge

Whatever may be thought of the Society emblem as a work of art rather than of utility, there is no gainsaying the fact that its shape is distinctive—so much so in fact that any similar object is quite noticeable.

A case in point is found in Washington, D. C. Any member who might have occasion to notice the traffic signs of the police department on all street corners and the intermediate regulations along the curb would be struck by a marked familiarity. To all intents and purposes these signs are in shape duplications of the Society badge. There is a slight variation in their proportion, it is true, but in the remaining identity this is unnoticed.

The oft-mentioned similarity between imitation and flattery seems to be applicable in this case. Thus, the Society

may feel a modest gratification in the fact that others have found something of value in the shape of its badge.

## Graduating Students and the Employment Service

Members of Society Student Chapters have many of the privileges of other members of the Society. Not the least among these advantages is the use of the Employment Service. Unfortunately, however, judging at least by results, students have been unaware of this fact for they have failed to avail themselves of the Service.

The Board of Direction, sensing the fact that the Employment Service and the Student Chapters could be of mutual benefit, instructed that copies of the Employment Bulletin should be sent to all members of Student Chapters during the past spring at the Society's expense. Accordingly, members in 66 Chapters received a total of approximately 1 200 copies of the Employment Bulletin weekly during the months of April and May.

Exact results of these efforts are not available, but may be judged by the fact that the Employment Service definitely interested 78 men from 38 different Chapters in its work. Undoubtedly, many of these students were thus enabled to secure employment.

As so much depends on a young man's start in his career, it is especially gratifying to think that the Society has had a large share in helping many of these men when they most needed it. The expense in so doing seems warranted in the success attained, especially in the quality of service rendered.

## Popular Research Narratives

These short stories of research, invention, and discovery, contributed by eminent scientists, engineers, and inventors are worth reading and are entertaining. They are proving excellent means for introducing and popularizing Engineering Foundation and engineering research.

Teachers and students in secondary schools and colleges are finding them useful. The price is only \$1.50 for the set of two books, post-paid to any address. Requests and remittances may be sent to Engineering Foundation, at 29 West 39th Street, New York, N. Y.

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## Report of Tellers on Second Ballot for Official Nominees

all as a should properly and the	33 West 39th Street, New York, N. Y.,
"Mr. George T. Seabury, Secretary,	"August 16, 1926.
AMERICAN SOCIETY OF CIVIL EN	CINEEDS
Nominees report as follows:	to canvass the Second Ballot for Official
"Total number of ballots receiv	ed
"Deduct: Ballots from mem	bers in arrears of dues. 276
Variable in the second	who have died since voting 2
" unsigned	
	ts not canvassed 300
	vassed
"For President:	vassed 4 692
John F. Stevens	2 579
Anson Marston	
Void	6
Blank	
"For Vice-President, Zone II:	"For Vice-President, Zone III:
John C. Hoyt 994	Arthur E. Morgan 577
G. J. Fiebeger 1	Baxter L. Brown 488
A. J. Dyer 1	Willard Beahan 1
Void 0	TOTAL TELEVISION OF
Blank 89	Blank 34
Total 1 085	Total 1 100
"For Directors, District No. 1:	"For Director, District No. 11:
(Two to be elected)	Harry W. Dennis 324
George J. Ray 611	Void 0
George L. Lucas 570	Blank 16
J. F. Sanborn 277*	Total 340
Aubrey Weymouth 176	"For Director, District No. 14:
Void 1	Con M. Buck 208
Blank 81	Don A. MacCrea 79
Total 829†	E. A. Hadley 1
"For Director, District No. 4:	Void 0
Frank O. Dufour 317	Blank 5
Void 0	Total 293
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Total 329	"For Director, District No. 15:
All statistics and the state of	Jacob H. Brillhart 160
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	Total 265
"Respectfully submitted	d. The light of we what well show my
	WINSOR, Chairman,
"Louis E. Robbe,	"Howard Holbrook,
REUBEN T. ROBIN	
John W. Daly,	Roger W. Armstrong,
ORRIN L. BRODIE,	
WILBUR T. WILSO	
FRED F. MOORE.	R. Speirs Saunders,
HOMER R. SEELY	
and the same of th	,

<sup>•</sup> Name withdrawn at candidate's request.

<sup>†</sup> Number of valid ballots cast, on most of which were two nominations for Director.

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# TENTATIVE DRAFT OF A CODE FOR THE GUIDANCE OF ENGINEERS IN PROFESSIONAL PRACTICE

Based on a Draft Prepared by the Northeastern Section of The American Society of Civil Engineers

This Tentative Draft of a Code of Practice, which in its original form was prepared by a Committee of the Northeastern Section, was presented to the Board of Direction by the Committee on Professional Conduct, with a few minor changes and additions.

The Board ordered this amended draft published in *Proceedings*, with the request for comment from the membership, looking toward further improvement. Comments on this draft by the membership are, therefore, requested.

It was felt that the adoption of such rules and regulations as are contained in the draft appear desirable but that their adoption should be held under advisement until all parts of the country have had opportunity to discuss them.

## CODE OF PRACTICE

#### Introduction

Many Codes of Ethics and Codes of Practice have been examined and eleven have received close study. The purpose has been to retain the best features of these existing codes so far as they apply to Engineers.

This Code is prepared with the hope that it may prove of value to those engaged in construction, without interfering with other codes prepared for specific purposes.

The eleven codes mentioned are those of the following organizations:

Texas Section, American Society of Civil Engineers,
American Society of Civil Engineers,
Boston Society of Civil Engineers,
American Institute of Consulting Engineers,
American Institute of Architects,
New York Building Congress,
Boston Building Congress,
Associated General Contractors,
Milwaukee Chapter, Associated General Contractors,
Industrial Association of San Francisco,
Master Builders Association of Boston.

#### Preamble

Any Code of Ethics is founded on the Golden Rule. A Code of Practice is an application of the Code of Ethics.

This is a Code of Practice. It is intended as a statement of conduct which is right under most circumstances. Examination of and experience with practically every article in it will reveal that there are special circumstances when that article ought not to be applied rigidly, if applied at all. It

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is therefore not intended as a code of laws, but is intended for a set of statements so generally true that there is a burden upon the Engineer to observe them, except when he shall satisfy himself that in his particular case the statement made does not apply.

Its purpose is not so much to impose on any one the judgment of others as to set each one thinking and forming his own judgment. Every member of a profession is, or should be, constantly revising and enlarging his conception of the conduct proper to that profession, and to this essential process of becoming his own judge, a code of practice is a great aid. It calls attention to practical applications of the Code of Ethics which might not be in the minds of some members, especially those of less experience.

## Contents

I.—The Relations of Engineers Among Themselves.

II.—The Relations of the Engineer with the Owner.

III.—Relations Concerning Contractors.

IV .- Relations Concerning Sub-Contractors and Material Men.

V.—Relations with the Public.

· For "Engineer" as herein used, "Architect" may be substituted when conditions require it.

## Part I.—The Relations of Engineers Among Themselves

- 1.—Every Engineer shall satisfy himself, to the best of his ability, that the enterprises with which he becomes identified are of legitimate character. If, after becoming associated with an enterprise in good faith, he finds it to be of questionable character, he shall sever his connection with it as soon as practicable.
- 2.—No one shall falsely or maliciously injure, directly or indirectly, the reputation, prospects, or business of another. The repetition of rumors, not positively known to be true, is but one degree less reprehensible than the making of a statement known to be false. This shall not, however, prevent protest against unethical practices on the part of others. Such a protest shall be submitted, together with the facts in the case, to the governing body of the organization of which the offender is a member, to be handled as provided by said organization's Constitution and By-Laws.
- 3.—Credit for work and ideas shall be attributed only to those who are the real authors.
- 4.—Services of an Engineer in the employ of some one else should not be secured without first communicating with his employer.
- 5.—An Engineer should not accept employment with another employer without first consulting his superior.
- 6.—A superior should not stand in the way of advancement of a subordinate.
- 7.—Publicity of the standards, aims, and progress of the profession, both in general and as exemplified by individual achievement, is essential. However, self-laudatory individual publicity procured by, or with, the consent of

the person advertised, is unethical in that it tends to lower the dignity of the profession.

8.—It is improper for an Engineer:

(a) To accept employment while the just claim for compensation or damages, or both, of a fellow Engineer previously employed on the same project and whose employment has been terminated, remains unsatisfied, or until such claim has been referred to arbitration, or issue has been joined at law, or unless the Engineer previously employed has neglected to press his claim legally after a reasonable period of time.

(b) To attempt to supplant a fellow Engineer after definite steps

have been taken toward his employment.

(c) To participate in competitive bidding against his colleagues for engineering work which is to go to the lowest bidder, nor to attempt to secure work by reducing his ordinary charges for professional services

after being informed of the charges named by a competitor.

(d) To offer commissions or to otherwise improperly solicit professional work either directly or indirectly, or to engage in the practice of making preliminary studies and estimates of cost for proposed projects and of giving other professional service or advice without adequate compensation.

(e) To accept any engagement to review the work of a fellow

Engineer, except with his knowledge.

9.—When an Engineer is engaged to make alterations of, or additions to, any construction designed by another, he shall bear in mind the original conception of the author. When practicable the new design shall be submitted to the original designer as a professional courtesy.

10.—Participation by engineers in competitions for the adoption of plans according to merit, or where prizes are offered, is always undesirable, and should be considered permissible only when the decision as to merit rests with persons technically educated and competent to pass judgment thereon.

## Part II.—The Relations of the Engineer with the Owner

1.—The Engineer may act as designer, supervisor of construction, or professional adviser to the Owner. He shall act in a strictly judicial manner.

2.—The Civil Engineer should always charge for professional advice, regulating his charges according to the interests involved, whether his client be a private citizen, a corporation, or a municipality.

3.—Except with the consent of the Owner, he shall not accept any other

remuneration than his direct charges for services rendered the Owner.

4.—Unless and until authorized by the Owner, he shall not receive, directly or indirectly, any royalty, gratuity, or commission on any patented or protected article or process used in work upon which he is retained by the Owner.

- 5.—He shall not accept any trade commissions, discounts, allowances, or any indirect profit or consideration in connection with any work which he is engaged to design or to superintend, or in connection with any professional business which may be entrusted to him.
  - 6.—He shall not directly or indirectly engage in any of the building trades.
- 7.—He shall inform the Owner of any business connections, interests, or circumstances which might influence his judgment or the quality of his services.

8.—Consultation with Engineers who have made certain branches of professional work a specialty, or who have acquired a pre-eminent standing in the profession, may be requested by the Engineer having general charge of any work or may be required by the Owner thereof. In either case the employment of the Consulting Engineer must be satisfactory to both Owner and Engineer and shall be at the expense of the Owner. Such employment should be encouraged.

No Engineer should agree to act as Consulting Engineer except at the request or with the consent of the Engineer in direct charge of the work; and his reports and advice should be confined to the particular matters with reference to which he has been consulted.

Charges for consultation should be based on the value of the services rendered rather than on time required in arriving at conclusions or opinions.

9.—The Engineer when acting as supervisor is the official interpreter of the contract and must insist upon its faithful performance by both parties.

10.—Planning, designing, and supervision are the functions of the Engineer. All such problems should be presented by the Owner to the Engineer rather than to the Contractor.

11.—As a complete engineering or architectural service, the Engineer shall furnish promptly whatever general, structural, and mechanical plans, details, and specifications as are needed for bidders or contractors. He shall not require bidders, contractors, or sub-contractors to make any part of such drawings or specifications without payment.

12.—He shall not attempt to conceal possible oversights or errors, nor attempt to shirk responsibility by indefinite clauses in the contract or specifications. The specifications shall clearly define unusual trade terms or trade names and customs understood to be part of the specifications.

13.—The Engineer shall see that the Owner decides before plans or specifications are detailed, whether he will let a general, segregated, lump-

sum, cost plus fee, unit price, or other form of contract.

14.—The Engineer is entrusted with financial undertakings in which his honesty of purpose must be above suspicion; he acts as professional adviser to the Owner and his advice must be absolutely disinterested; he is charged with the exercise of judicial functions as between the Owner and Contractor and must act with entire impartiality; he has moral responsibilities to his professional associates and subordinates; finally, he is engaged in a profession which carries with it grave responsibility to the public.

## Part III.—Relations Concerning Contractors

1.—A contract that is fair to all parties is a sound basis for amicable and pleasant relations between the Owner, the Engineer, and the Contractor. Several contract forms have been prepared by committees of various technical societies. These forms are recommended for study and reference so that contracts of similar types may as time goes on approach common standards. The Engineer should incorporate in his contracts any provision which he considers necessary to protect the interests of either Owner, Engineer, or Contractor.

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2.—The general, rather than the segregated, contract for both public and private construction work is as a rule more satisfactory and economical for the Owner, the Engineer, and the Contractor. When segregated contracts are used for the several parts of a single project much of the Contractor's responsibility is placed upon the Owner.

3.—The Engineer shall see that full information and facilities, such as access to site, completed plans, adequate time and quantity surveys where practicable, are afforded to all those estimating. This procedure is for the ultimate benefit of the Owner, as well as the Contractor.

4.—The following provisions regarding the letting of contracts have been found to be good practice:

(a) The preparation of an intelligent bid involves time, labor, and expense. The rules of fairness and honor shall govern its use. The contract shall be awarded on the basis of the original bid, except when substantial change is made in the work, or when further bidding on alternate items is requested. Any reduction of a bid disproportionate to such change constitutes unfair competition.

(b) A bid received from a Contractor or Material Man, whether in open competition or privately, should not be used as a lever to secure lower prices from competitors; nor shall all competitive bids be rejected for the main purpose of using the information derived from them as a means of securing lower bids from those who competed or from others. After the acceptance of the bid, any changes which would have materially changed the bidding shall be avoided whenever practicable.

(c) When bids are solicited and received by an Owner on a lumpsum basis, no competitor other than the low bidder shall solicit the work on a percentage, or any other form of cost-plus contract; provided, however, that any competitor shall have the right to accept the work on a percentage basis if tendered him without guaranteed maximum cost or at a guaranteed maximum cost not less than his original bid.

(d) When bids are received on a unit-price basis the whole work covered by the bid shall be awarded to one Contractor.

5.—Engineers shall not call for unnecessary or full estimates from prospective bidders on tentative projects.

6.—The Contractor's professional knowledge is the result of his training and experience and if the Engineer calls upon him for preliminary estimates or appraisals, he should see that he is paid for such service.

7.—Engineers shall eliminate as far as possible alternate estimates, secondary estimates, and allowances when asking for bids.

8.—Where time is important the Engineer shall state a definite date of completion of the work on which all bids shall be based.

9.—The Engineer shall, where possible, endeavor to so arrange that bids will be received only from Contractors to whom he would be willing to award the work. On private work he should invite a limited number of contractors (six is suggested) of satisfactory ability and standing to compete.

10.—It is the best practice to fix a definite time and place for the opening and reading of all bids for a given contract, whether on public or private work, at which all bidders or their representatives shall be permitted to be present.

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- 11.—Where the Engineer is charged with the supervision of work and the issuance of orders for changes, all business shall be transacted through the Engineer.
- 12.—The Engineer employed to supervise work shall act either personally or through a representative competent for the class of work under his supervision and fully authorized to act for him.
- 13.—The Engineer should understand that the functions of the Contractor are to furnish the co-ordinating control of a centralized management, often to guarantee to the Owner the limit of cost and the time of completion of the project; also to assume all the risks and responsibilities of physical and business conditions relating to the site, materials, and labor used on his contract except it is not his duty to assume responsibility for conditions at variance with or which cannot be reasonably inferred from plans and specifications.
- 14.—The Contractor shall be responsible for the details as to methods and conduct of the work, subject to the approval of the Engineer. The Engineer shall give as much latitude as is feasible for the Contractor to adopt his own methods.
- 15.—The Engineer shall insist on a mutual exchange between the Owner and the Contractor of information regarding integrity and responsibility.
- 16.—The Engineer shall give immediate consideration to, and prompt action upon, the Contractor's applications for payment. He shall not be a party to any desire on the part of either party to anticipate or to delay payments, due under the contract.

## Part IV.—Relations Concerning Sub-Contractors and Material Men

- 1.—The principles of Part III, in so far as applicable, shall govern the relation of Engineers with Sub-Contractors. Material Men are considered as Sub-Contractors.
- 2.—It is undesirable for Sub-Contractors to supply bids to the Contractor through the Engineer.
- 3.—No sub-contracts shall be awarded by the Contractor without the consent of the Owner or his representative.
  - 4.—The Engineer shall recognize the following as good practice:
    - (a) The Contractor shall use bids for labor and materials only from Sub-Contractors to whom he is willing to award the work.
      - (b) All Sub-Contractors shall be given the same basis for bidding.(c) A bid received from a Sub-Contractor shall be both final and
- confidential to both parties.

  (d) If in making up his own bid a Contractor has used the bid of a Sub-Contractor, he shall in awarding the sub-contract give that
- bid first consideration.

  (e) In all ways the Contractor shall accord to Sub-Contractors the same treatment he desires for himself. In particular, he shall not withhold payment to Sub-Contractors for work or for materials for which he has received payment. In case of departures from plans and in case of extra work the Contractor shall afford the Sub-Contractor as complete protection as though the work had been done by the Contractor himself.

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## Part V.—Relations with the Public

1.—National and local prosperity and development affect the employment of the Engineer and the Contractor. Public duty, as well as personal interest, justify the Engineer and the Contractor in advancing worthy public enterprises.

2.—The Engineer and the Contractor shall maintain a dignified interest in the welfare of the community, and should join and support the local civic and commercial associations to the end that the influence of their professions may be felt in all public matters in which their special training, knowledge, and experience qualify them to advise.

3.—They shall endeavor to assist the public in arriving at a fair and correct general understanding of the technical phases of public questions. They shall discourage and challenge untrue, unfair, and exaggerated statements on technical subjects, especially when such statements may lead to, or are made for the purpose of promoting unworthy or uneconomic public enterprises.

4.—They shall accept personally their responsibility as good citizens; assume their proper share of gratuitous public work for the general good; support public officials in the proper enforcement of technical regulations; and take an active interest in the formulation and improvement of such regulations.

5.—They shall give consideration to the affect upon the community of every proposed project with which they are connected.

6.—In his attitude toward public technical questions, the Engineer shall bear in mind his responsibility both to his profession and to the public.

7.—Public appreciation of their profession will be increased by the advancement of the technical sciences. They shall promote such advancement by their own efforts and by their encouragement of sound technical training.

8.—In addition to the safeguards required of them, they shall recognize their broader obligation to provide amply for the safety, health, and comfort of the public in so far as affected by their operations.

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(ii) Exerct to Division Executive Committees, milogree larger march be when the mosting is field at the same time and above as the mass ingree of this or often Societies, indees expectably acciparized by the

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## Meetings of the Board of Direction

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This is an abstract of the notes of the Secretary and subject to approval by the Board of Direction at its next meeting.

Meetings of the Board of Direction were held on July 12 and 13, 1926, at the Hotel Olympic, Seattle, Wash., the following being in attendance: President George S. Davison; Secretary George T. Seabury; and, also, Messrs. Chevalier, Dewell, Grunsky, Hammond, Hazen, Howe, Huber, Humphrey, Ketchum, A. O. Ridgway, Robert Ridgway, Sawyer, Spofford, and Taber.

## Approval of Minutes of Board

The minutes of the meeting of the Board of Direction held on April 12-13, 1926, were approved.

## Approval of Minutes of Executive Committee

The minutes of the meeting of the Executive Committee held on June 11, 1926, were approved, and the actions outlined therein were adopted as the action of the Board, with the exception of several recommendations which were discussed and acted on separately.

## Rules of Financial Administration of the Technical Divisions of the Society

Rules of financial administration of the Technical Divisions, recommended by the Committee on Technical Procedure and the Executive Committee, after having been slightly modified, were adopted as follows:

1.—Dues.—In accordance with Article VII of the By-laws, action of Technical Divisions in levying dues (either on Division members or Division Affiliates) is subject to approval by the Board of Direction. Dues are to be collected by the Secretary's Office and are to be placed in a separate fund to be disbursed only for the particular Division concerned.

2.—Budget.—Executive Committees of Technical Divisions shall prepare budgets for the guidance of the Board of Direction in making annual appropriations. Such budgets are to be submitted to the Board, through the Secretary's Office, not later than November 1 each year.

3.—Payment of Division Bills.—All bills of Technical Divisions, certified as correct by the Chairman of the Division Executive Committee, are to be paid through the Secretary's Office, to the extent of the Division's appropriation, or of its available funds.

#### 4.—Mileage.—

(a) Mileage may be paid to committees of Technical Divisions to the extent of the available funds, at a rate not exceeding that allowed to Special Committees of the Society, that is, 6 cents per mile.

(b) Except to Division Executive Committees, mileage is not payable when the meeting is held at the same time and place as the meetings of this or other Societies, unless especially authorized by the Board. at

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(c) Mileage may be paid to Division Executive Committees which hold meetings in connection with Society meetings or which hold meetings in connection with authorized Technical Division meetings not occurring in connection with Society meetings.

(d) Mileage may be paid to one member of an Executive Committee or to the Secretary of a Division for attendance at a Society meet-

ing, to take charge of a Division meeting program.

5.—Meeting Expenses.—The cost of preprints of papers, stenographic service, projection lanterns, motion picture machines, rental costs, special notices, and other expenses of all Technical Division meetings and mileage paid to persons authorized to have charge of such meetings are to be charged to the respective Division accounts and are to be anticipated in the Budget.

6.—Ballots, Circulars, Enrollment.—The Secretary's Office is to assist to the extent desired in sending out Division ballots, in enrollment of members,

in the printing and mailing of Division circulars and related matter.

## Amendment to Article V, Section 2, of the By-Laws

In accordance with the recommendations of the Committee on Student Chapters, Article V, Section 2 of the By-Laws was amended to read as follows:

"2.—The qualifications required of a proposed Student Chapter shall include:

"(a).—An organization of students in an engineering school of approved standing.

"(b).—The endorsement of the application by the head of the civil en-

gineering department.

"(c).—A minimum membership of twelve students.

"(d).—The engineering school must be one that grants the degree of

Bachelor of Science in Engineering or its equivalent.

"(e).—The entrance requirements of the engineering school shall be either upon certificate of accredited preparatory schools or colleges, or upon passing examinations similar in character to to those given by the College Entrance Board.

"(f).—The curriculum of the Junior and Senior years must require at least one-half the time devoted to purely engineering subjects.

"(g).—The engineering school must have had at least one hundred graduates in engineering and architecture combined before making application for a Student Chapter. The term, engineering, as used includes civil, military, naval, mining, mechanical, electrical and other professional engineering subjects.

"(h).—The faculty sponsor of the Student Chapter shall be a Corporate

Member of the Society."

## Report of Professional Conduct Committee Condemning Solicitation of Funds for Political or Personal Purposes

Information relating to an instance of solicitation of funds from engineering employees of a State department, having come before the Board for consideration, the Committee on Professional Conduct submitted a report in which the Committee condemned the practice and held that any solicitation of funds or any suggestion that money should be contributed for such a personal or political purpose, coming from the head of a department, was wrong and reprehensible.

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In approving the report of the Committee, the Board ordered that it be published in *Proceedings* and released to the technical press. The report in full is printed on page 412 of this number of *Proceedings*.

### Code of Practice of the Northeastern Section

The Committee on Professional Conduct submitted a tentative draft of a Code of Practice that had been prepared by a Committee of the Northeastern Section. This draft, with a few minor changes and additions by the Committee on Professional Conduct, was ordered printed in *Proceedings* with the request that members submit suggestions for further improvement. The tentative draft is published on page 415 of this issue of *Proceedings*.

## Expulsions

Continuing a matter which had been under consideration for about nine months, and which originated in a petition, signed by the requisite number of members, the Board of Direction, in the manner prescribed in Article III, Section 2, of the Constitution, took action expelling for cause, two Corporate Members of the Society, and directed that a notice of such action be sent to the two men concerned and to the Corporate Members of the Society.

## Support of Research in Engineering Education

The Board recorded its appreciation of the research thus far accomplished in the field of Engineering Education now being conducted by the Society for the Promotion of Engineering Education, and endorsed the program. The Executive Committee was instructed to make provision for the appropriation of approximately \$1 600 for the support of the continuance of the research in engineering education in 1927.

## Support of Tests on Stevenson Creek Dam to Be Continued

In response to a letter asking whether the Society would contribute toward continuing the work on the test program of the Stevenson Creek Dam, the Board authorized support of this project to the extent of seeing that the selaries of the trained observers be continued for three months at an expense understood to be in the neighborhood of \$3 300.

## Appropriation for Study of Effects of Earthquakes to 129928

An additional appropriation of \$500 was authorized for the work of the Special Committee on Effects of Earthquakes on Engineering Structures.

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## Local Sections\*

Duluth.—July 19, 1926. Following the business meeting a paper was read by Mr. J. F. Base entitled "Suggestions for the Control of Urban Development". A discussion of the subject followed. Attendance 12.

Kansas (State).—After a business meeting at which local matters were discussed, a short address was given by Secretary Seabury. Attendance 15.

Louisiana.—April 23, 1926. Annual Meeting. It was decided that the Section give two prizes of Junior Membership in the Society to Senior Students in the Civil Engineering Course of Tulane University and the Louisiana State University. President Davison spoke on the history, development, and expansion of the Society. Secretary Seabury also addressed the meeting. The following officers were elected: President, W. T. Hogg; First Vice-President, F. A. Muth; Second Vice-President, B. H. Grehan; Secretary, R. H. Mann; Treasurer, C. N. Bott. Attendance 27.

May 11, 1926. A meeting was called to discuss the formal adoption by the Commission Council of a new Building Code for the municipality of New Orleans. A Committee of Engineers was authorized to assist in procuring the adoption of the code.

May 23, 1926. The work accomplished by the Committee of Engineers to Assist in Procuring the Adoption of the Building Code was reported. Letters relating to the subject were read and a plan of action was presented which was approved unanimously.

June 4, 1926. A resolution was adopted relative to the requirements for the signing of drawings under the new Building Code.

Philadelphia.-June 7, 1926. Annual Meeting. A reception and dinner preceded the meeting which was opened by retiring President Henry J. Sherman with a brief address. Secretary-Treasurer George H. Shaw submitted the Annual Report of the Section. The following officers were elected: President, Clark Dillenbeck; Vice-President, Charles A. Emerson, Jr.; Secretary-Treasurer, George H. Shaw; Directors, Charles Elcock and William R. Scanlin. An address was given by President-elect Dillenbeck. A paper by Mr. Paul J. Smith, a member of the University of Pennsylvania Student Chapter, received the award in the annual competition for the Junior membership prize. Mr. Sherman addressed the members of the Student Chapters who were present. Secretary Seabury spoke on the work of the Society and was followed by President Davison who addressed the meeting on engineering experiences and Society affairs. Vice-President Richard L. Humphrey, Chairman of the Philadelphia Annual Convention Committee, gave an outline of the plans for the Annual Convention of the Society to be held in Philadelphia on October 4 to 9, 1926. Attendance 74.

Sacramento.—April 6, 1926. P. M. Downing, Vice-President, in charge of electrical construction and operation, of the Pacific Gas and Electric Company, addressed a Joint Meeting of the Section and the Local Chapter of the

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<sup>\*</sup> For list of Local Section Officers, Rules, etc., see 1926 Year Book, p. 88.

American Association of Engineers on "The Pit River Development of the Pacific Gas and Electric Company". Attendance 54.

April 13, 1926. Mr. F. L. McNally, of the Pacific Telephone and Telegraph Company, spoke on "The History of the Telephone". Attendance 29.

April 20, 1926. Mr. Ashley C. Brown, of the California Spray-Chemical Company, gave a talk on "Some Phases of the Fruit Industry". Attendance 29.

April 27, 1926. The Section adopted resolutions relative to the death of George S. Nickersson, an organizer and Past-President of the former Engineers' Club of Sacramento. Mr. Wolcott Remington, of the Thompson Company of Lynn, Mass., was a guest at this meeting. Attendance 20.

May 4, 1926. M. M. O'Shaughnessy, City Engineer of San Francisco, Calif., addressed a Joint Meeting of the Section and the Local Chapter of the American Association of Engineers on "The Hetch-Hetchy Water Supply of the City of San Francisco". Attendance 77.

May 11, 1926. Mr. H. F. Jerauld read a paper on "Precise City Surveying". Mr. Ben C. Gerwick was a guest at this meeting. Attendance 23.

May 25, 1926. Mr. J. F. Johnston, of the Associated Oil Company, reviewed the oil industry and sketched the processes used to obtain finished products from crude oil. Attendance 25.

June 1, 1926. Thomas G. Gerdine, Topographic Engineer of the U. S. Geological Survey, addressed a Joint Meeting of the Section and the Local Chapter of the American Association of Engineers on the topic, "The Story of Topography", illustrating his talk with moving pictures taken in the field. Attendance 54.

June 15, 1926. Members of the Sacramento City Engineering Department spoke on the proposed civic improvements which are to be voted on at a bond election to be held on June 29, 1926. Messrs. E. W. Kramer, of the U. S. Forest Service, John Spencer, Engineer for the State Fish and Game Commission, and H. S. Williams, of Santa Cruz, were guests at this meeting. Attendance 31.

June 29, 1926. A resolution was adopted relative to the death of Wilbur F. McClure, M. Am. Soc. C. E., State Engineer and Director of Public Works of California. Vice-President Huber was a guest at the meeting. Attendance 21.

July 6, 1926. Mr. M. Butler, of the Los Angeles City Engineering Department, addressed a Joint Meeting of the Section and the Local Chapter of the American Association of Engineers, outlining the major engineering projects now under way in Los Angeles, Calif. Attendance 43.

A dinner was held at which addresses were given by Past-President Grunsky, Vice-President Huber and Secretary Seabury, all of whom, with Director Dewell, were guests of the Section. Attendance 30.

July 20, 1926. Messrs. E. C. Eaton, Frank Adams, and Albert Given were appointed a Committee to consider the matter of naming a proper engineering structure in memory of the late Wilbur F. McClure, M. Am. Soc. C. E. An invitation to the Section from General Manager A. L. Wisker and Chief

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Engineer Fred L. Tibbets to visit the Nevada Irrigation District as its guests was reported. Resolutions were passed approving the appointment of Mr. Paul Bailey as State Engineer and Director of the Department of Public Works. Mr. S. M. Searancke spoke of the life and work of Mr. Frederick H. Tillinghast, who died on July 15, 1926. As a token of respect to the departed member the meeting adjourned in silence. Attendance 24.

July 27, 1926 Mr. Gerharz, formerly Surveyor-General of the State of Montana, spoke on "The Water Resources of Montana". He described the physiography of the State, the laws relating to the appropriation of water and the formation of irrigation districts, the hydro-electric development, the important dams constructed for water storage, the existing Federal reclamation and Carey Act districts, the need for irrigation, and the colonization problem. Attendance 18.

## Student Chapters\*

Johns Hopkins University.—October 16, 1925. Organization Meeting.

November 6, 1925. Maj. Joseph W. Shirley, Engineer of Plans and Surveys for Baltimore, spoke on "The City Plan for Baltimore".

December 11, 1925. Mr. James W. Armstrong, Baltimore City Filtration Engineer, gave an illustrated lecture on "The Montebello Filters".

January 8, 1926. Mr. Louis Kravetz, of the Senior Class, talked on "The Evolution of the Aeroplane".

February 12, 1926. Mr. Herman F. Doeleman, Consulting Engineer, of Baltimore, addressed the Chapter on "Floors".

March 19, 1926. Mr. Robert T. Regester, Class of 1925, spoke on "The Design and Construction of Wood Stave Pipe Lines".

May 7, 1926. Mr. Melvin E. Scheidt, Class of 1921, discussed the organization of a consulting engineer's office, and the manner in which the work is performed.

May 13, 1926. The following officers were elected for the year 1926-27: President, Gilman Goodrich; Vice-President, George M. Armor, Jr.; Secretary, Howard M. Zimmerman; and Treasurer, Edward S. Loane.

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<sup>\*</sup> For list of Student Chapters, Officers, etc., see 1926 Year Book, p. 94

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## Engineering Societies Library Land montant

The services of the Engineering Societies Library are available to all members who wish searches, copies, translations, etc., or advice on technical literature. A collection of modern books is also available for loan to members in North America, at moderate rentals. Correspondence should be addressed to the Director, Engineering Societies Library, 29 West 39th Street, New York, N. Y., who will gladly give information concerning the charges for the various kinds of work. A more comprehensive statement in regard to this matter will be found on pages 110 and 111 of the Year Book for 1926.

## Book Notices\*

(July 1 to July 31, 1926)

The Engineer and the Prevention of Malaria. By Henry Home. Lond., Chapman & Hall, 1926. 176 pp., illus., diagrams, 8 x 5 in., cloth. 13s 6d.

The author, an engineer with experience of the problem in a number of tropical countries, summarizes for the benefit of other engineers the results of modern research and its practical application to mosquito destruction.

Geometry of Engineering Drawing: Descriptive Geometry by the Direct Method. By George J. Hood. N. Y., McGraw-Hill Book Co., 1926. 290 pp., diagrams, 9 x 5 in., cloth. \$2.50.

This new and proved method of teaching descriptive geometry, avoids the use of planes of projection, quadrants, etc., and directs attention to the object itself, in agreement with engineering practice.

Hydraulics. By Joseph N. Le Conte. N. Y., McGraw-Hill Book Co., 1926. 348 pp., diagrams, tab., 9 x 6 in., cloth. \$3.00.

This textbook on the theoretical principles of hydraulics, based on first principles instead of empirical rules or tables, encourages the mastery of the fundamentals of the subject first by the use of pure mathematics and mechanics.

Lighthouse Service. By George Weiss. (Inst. for Governmental Research. Service Monograph No. 40.) Balt., Johns Hopkins Press, 1926. 158 pp., 9 x 6 in., cloth. \$1.00.

This book describes the organization, functions, equipment, and cost of the Lighthouse Service and the laws governing it, and includes a bibliography for the information of officials, members of Congress and the public.

Materials of Construction: Their Manufacture and Properties. By Adelbert P. Mills. Edited by Harrison W. Hayward. Third Edition. N. Y., John Wiley & Sons, 1926. 419 pp., diagrams, charts, 9 x 5 in., cloth. \$4.00.

This general textbook for civil engineers, somewhat elementary in character, covers the manufacture, properties, and uses of the more common materials. In this edition the text on the constitution of metals, alloy steels, and alloys has been expanded, and the chapters on cement, concrete, and timber have been revised.

Metallography and Heat Treatment of Iron and Steel. By Albert Sauveur. Third Edition. N. Y., McGraw-Hill Book Co., 1926. 535 pp., illus., diagrams, tab., 11.x 8 in., cloth. \$8.00.

Revised after ten years, the third edition of this well-known textbook shows about fifty pages added and the text re-arranged.

Ouroboros; or, The Mechanical Extension of Mankind. By Garet Garrett. N. Y., E. P. Dutton & Co., 1926. 101 pp., 6 x 4 in., cloth. \$1.00.

The author attempts to forestell the future effect of machinery on civilization. The machine, which already has revolutionized agriculture, industry, and finance, threatens, he thinks, to upset the economic world. It is becoming a curse, yet man cannot do without it. He must, however, solve the problem that it has raised or civilization will fall.

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<sup>\*</sup> The statements made in these notices are taken from the books themselves and this Society is not responsible for them. Unless otherwise specified, the books in this list have been donated by publishers.

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B. Applied Mechanics

# Current Civil Engineering Literature and of the control of the con

# Key to Abbreviated References to Publications Indexed\*

Abbreviated References. Publication.	Place.
Am. C. InstAmerican Concrete Institute, Proceedings (Y.)  A. I. E. EAmerican Institute of Electrical Engineers Journal (M.)  A. R. E. AAmerican Railway Engineering Association, Proceed-	Detroit
ings (Y.)  A. S. T. MAmerican Society for Testing Materials, Proceedings (Y.)  Am. Soc. C. EAmerican Society of Civil Engineers, Proceedings (M.)	Chicago Philadelphia New York
Am. Soc. Mun. Impvts. American Society for Municipal Improvements, Proceedings (Y.)	New York
Am. Wood Prs. Assoc. American Wood Preservers Association, Proceedings (Y.)	Baltimore
Ann. P. et CAnnales des Ponts et Chaussées (Bi-M.) Ann. T. P. BelgAnnales des Travaux Publics de Belgique (Bi-M.)	Paris Brussels
Assoc. lng. GandAnnales de l'Association des Ingénieurs sortis des Ecoles Spéciales de Gand (Q.)	Ghent
Bost. Soc. C. EBoston Society of Civil Engineers, Journal (M.) Can. EngrCanadian Engineer (W.)	Boston
Cornell C. ECornell Civil Engineer (M.) Dock & HarbourDock and Harbour Authority (M.)	Ithaca
Eng	London
Eng. inst. Can Engineering Institute of Canada, Journal (M.) Eng. N. R Engineering News-Record (W.)	
Corre Coe W Da Engineers' Nocieta of Western Pennsulagnia Journal (M.)	
Engr. Engineer (W.) Engrs. & Eng. Engineers and Engineering, Engineers Club of Philadelphia (M.)	London
	Philadelphia Paris
Gen. ClvLe Génie Civil (W.) Gesund. IngGesundheits Ingenieur (W.) Inst. C. EInstitution of Civil Engineers Minutes of Proceedings (Q.) Inst. Mun. & Co. Engrs. Institution of Municipal and County Engineers, Jour-	
Int. Ry. Cong. AssocInternational Railway Congress Association, Bulletin (M.)	London Brussels
Land. Arch	Harrisburg New York
Mil. Engr	Washington
	New York
Mun. & Co. EngMunicipal and County Engineering (M.) N. E. W. W. AssocNew England Water Works Association, Journal (M.) N. Y. R. R. ClubNew York Railroad Club, Proceedings (M.)	Indianapoli Boston Brooklyn
Oest. Ing. Arch. VerOesterreichischer Ingenieur und Architekten Verein, Zeitschrift (F.)	Vienna
Dev Gen Revue Générale des Chemins de Fer (M.)	New York Paris
Ry. Age	New York Chicago
Ry. Rev	Chicago Zurich
Soc. Ing. Civ. Fr Société des Ingénieurs Civils de France, Mémoires et	New York
Tach Gamein Technisches Gemeindehlatt (F.)	Paris Berlin
Ver. deu. IngVerein deutscher Ingenieure, Zeitschrift (W.) West Dy Club Western Railway Club Proceedings (M.)	Berlin Chicago
West. Soc. EngrsWestern Society of Engineers, Journal (M.)	Chicago
Zeit. Bau	Berlin

<sup>•</sup> Y = Yearly; Q = Quarterly; M = Monthly; F = Fortnightly; W = Weekly.

## B. Applied Mechanics

#### a. Mechanics of Solids (Strength of Materials)

2. Elastic Solids L'Expérience du Professeur Bach sur la Flexion d'un Fer Soumis à des Forces Extérieures et la Centre de Glissement. (Professor Bach's Experiment on the Flexure of an Iron Subjected to External Forces and the Centre of Slipping.) D. Wolkowitsch. Gen. Civ. June 5, '26. .
3. Jointed Systems

papareil Donnant le Tracé des Lignes d'Influence des Poutres Continues.\* (Apparatus Giving the Outline of the Influence Lines of Continuous Girders.) Gustave Colonnetti. Gen. Civ. June 12, '26. Appareil Donnant

Riveted Systems Note sur la Resistance des Pieces Rivees de Grand Epaisseur.\* (Note on the Strength of Riveted Pieces of Great Thickness.) L. Bonnet. Ann. T. P. Belg. June, '26.7. Pulverulent Masses

Retaining Walls and Geostatic Theories.\* F. W. Woods. Engr. June 11, '26.

#### b. Hydraulics

Physical Hydraulics Einheitliche Formelizeichen in der Hydraulik. Mitgeteilt von der preussischen Versuchsanstalt für Wasserbau und Schiffbau in Berlin. (Standard Symbols for Formulas in Hydraulics. Communicated by the Preussische Versuchsanstalt für Wasserbau und Schiffbau at Berlin.) Z. d. Bauver. June 9, '26.

Industrial Hydraulics Onsiderations in the Development of Water-Power, with Special Reference to India. Bertram Darell Richard. Inst. C. E. Vol. 220, 1924-25, Pt. 2.

Water-Power Storage by Pumping. Reginald Ryves. Engr. June 11, '26.

Speed Changes of Hydraulic Turbines for Sudden Changes of Load.\* Earl B. Strowger and S. Logan Kerr. Mech. Eng. July, '26.

Die Bestimmung der Hauptabmessungen der Francisturbine.\* (Determination of the Principal Directions of Francisturbine.\*

cipal Dimensions of Francis Turbines.) Jaroslav Hybl. Ver. deu. Ing. June 26, '26,

Construction of the Wilson Dam.\* M. C. Tyler. Am. C. Inst. Vol. 22, 1928.

Control of Mixture and Testing of Wilson Dam Concrete.\* John W. Hall. Am. C. Inst. ol. 22, 1926

Notes on Dam No. 1, Tennessee River.\* Edwin P. Ketchum. Mil. Engr. July-Aug., '26.

## C. Materials of Construction and General Processes

a. Lime, Cement, Mortar, Concrete, Brick, Bitumin, Timber, etc.

Effect of Lime on Concrete Products.\* Paul C. Cunnick. Am. C. Inst. Vol. 22, 1926.
The Art of Making Good Concrete. Edward S. Larned. Bost. Soc. C. E. June, '26.
The Design and Control of Concrete Mixes.\* Walter C. Voss. Bost. Soc. C. E. June, '26.
Old and New Ideas of Control of Strength of Concrete.\* John G. Ahlers. Bost. Soc. C. E. June, '26.

Experience with Lime in Building Construction. J. P. Mollenkof. (Paper read before Nat'l Lime Assoc.) Mun. & Co. Eng. June, '26. Setting Time of Cement Indicated by a Machine Operation. A. A. Jakkula. Eng. N. R. July 8, '26.

Proportioning Concrete by Water: Cement Ratio. W. C. Mabee. Am. W. W. Assoc. July, '26, Beltrag zur Kenntnis der Bedeutung von hochwertigem Zement.\* (Contribution to the Knowledge of the Importance of High Grade Cement.) Luz David. Z. d. Bauve. June 9, '26,

c. Preservation and Use of Materials, Painting, Waterproofing

Report of Committee E-6, On Destructive Agents and Protective Treatments.\* Am. C. Inst. Vol. 22, 1926.

Soaps as Integral Waterproofing for Concrete.\* Alfred H. White and John H. Bateman. Am. C. Inst. Vol. 22, 1926.

Wood Preservation and the Engineer.\* Reuben W. Smith. Mil. Engr. July-Aug., '26.

## f. Rock Excavation, Mining, Rock Removal

Electric Method of Firing Blasts.\* Charles S. Hurter. (From Du Pont Explosives Service Bulletin.) Eng. & Contr. June 16, '26.

Abstracts of Institute Papers. Min. & Metal. July, '26.

#### g. Execution of Works, Specifications

Architectural Concrete.\* John J. Early. Am. C. Inst. Vol. 22, 1926.
Concrete Building Units and the Cincinnati Building Code. George R. Hauser. Am. C. Inst.

Vol. 22, 1926.
Concrete Units in Building Codes. Frank P. Cartwright. Am. C. Inst. Vol. 22, 1926.
Control of Concrete Mixtures on University of Pittsburg Stadium.\* W. S. Hindman. Am. C. Inst. Vol. 22, 1926.
The Effect of Varied Curing Conditions Upon the Compressive Strength of Mortars and Concrete.\* Herbert J. Gilkey. Am. C. Inst. Vol. 22, 1926.
Extensibility of Concrete.\* W. K. Hatt. Am. C. Inst. Vol. 22, 1926.
New Experiences in Concrete Control.\* John G. Ahlers. Am. C. Inst. Vol. 22, 1926.

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Ornamental Concrete Floor Surfacings with Especial Reference to Terrazzo.\* H. S. Wright, Am. C. Inst. Vol. 22, 1926.
Relation of 7-Day to 28-Day Compressive Strength of Mortar and Concrete.\* W. A. Slater, Am. C. Inst. Vol. 22, 1926.
Report of Committee E-3, on Research. Am. C. Inst. Vol. 22, 1926.
Report of Committee P-4, Concrete Staves.\* Am. C. Inst. Vol. 22, 1926.
Seven Years of Experience with Job Control of the Quality of Concrete.\* Roderick B. Young. Am. C. Inst. Vol. 22, 1926.
Standard Specification of Measurement of and Estimating Concrete—Standard Methods for the Measurement of Concrete Work. Am. C. Inst. Vol. 22, 1926.
Succo Textures and Colors.\* O. A. Malone. Am. C. Inst. Vol. 22, 1926.
Suggestions on the Decorative Use of Concrete.\* David C. Allison. Am. C. Inst. Vol. 22, 1926.
Use of the Water-Ratio Specification on the Portland Cement Association Building.\* F. R. McMillian and Stanton Walker. Am. C. Inst. Vol. 22, 1926.
What Are the Most Significant Tests for Concrete.\* A. T. Goldbeck. Am. C. Inst. Vol. 22, 1926.
Reconstruction of Concrete Floor.\* Can. Engr. June 22, '26.

Reconstruction of Concrete Floor.\* Can. Engr. June 22, '26.
Football Stadium, Denver University. E. B. Wood. (Engineer's Bulletin.) Eng. & Contr. June 23, '26.

South Dakota University Stadium Built in Small Units.\* J. Maughs Brown. Eng. N. R.

July 1, '26.
Eine Einrichtung zur lotrehten Leitung des Gussbetons.\* (An Arrangement for the Perpendicular Conduction of Poured Concrete.) Bernhard Rentsch. Z. d. Bauver. June 9, '26. 4. Of Metal

Trusses Carry Office Building Over St. Louis Theatre.\* Eng. N. R. July 15, '26.

Trusses Carry Office Building Over St. Louis Theatre. Eng. N. R. July 15, 26.

5. Of Reinforced Concrete
Formulas for the Design of Rectangular Floor Slabs and the Supporting Girders.\* H. M.
Westergaard. Am. C. Inst. Vol. 22, 1926.

Outline of Tests on 300-ft, Reinforced-Concrete Chimney.\* Benjamin Wilk. Am. C. Inst.
Vol. 22, 1926.

400-Ft. Reinforced Concrete Chimney.\* Eng. July 9, '26. x. Miscellaneous

Difficulties of Construction Work.\* P. J. Searles. Eng. N. R. July 15, '26.

h. Foundation, Bridge Piers, and Abutments

Digging a Million Dollar Cellar, New York City. M. F. McKenna, Eng. N. R. July 1, '26. Mill Extension at Shawinigan Falls, Que.\* J. W. H. Ford. Can. Engr. July 6, '26.

j. Piles and Pile-Driving

A Problem in Plant Layout on Saturated Sand.\* Eng. N. R. June 24, '26.

Duocrete Piling.\* Emil F. Cycler. (Paper read before Am. Assoc. Port Auth.) Dock &
Harbour July, '26.

k. Tunnels and Tunneling-Shields

The Moffat Railway Tunnel, U. S. A.\* Engr. Serial beginning July 2, '26. Progress and Methods on the New Cascade Tunnel; G. N. Ry. Eng. N. R. July 15, '26.

x. Miscellaneous

Occurrence and Prevention of Small Wastes in Construction.\* W. N. Jones. Eng. N. R. July 15, '26.

## D. Highways

a. Location

Crossing Elimination and Road Relocation in California.\* Eng. N. R. June 24, '26. Economic Considerations in Highway Location.\* A. R. Losh. (Paper read before Southwest Road Show & School.) Eng. & Contr. July, '26.

c. Construction The Johore Causeway.\* Donald Paterson. Inst. C. E. Vol. 220, 1924-5, Pt. 2.
Concrete Pavement Design.\* L. W. Teller and J. T. Pauls. Am. C. Inst. Vol. 22, 1926.
Efficiency in the Supervision of the Construction of Concrete Road Surfacing.\* J. L. Harrison. Am. C. Inst. Vol. 22, 1926.
South Water Street Improvement. T. E. Evans. Am. C. Inst. Vol. 22, 1926.
Transverse Testing of Concrete.\* H. F. Clemmer and Fred Burggraf. Am. C. Inst. Vol. 22,

1926.

New Road Specifications for Michigan. L. N. Jones. (From Michigan Roads and Pavements.)

Mun. & Co. Eng. June, '26.

Old Pavements Surfaced with Second Slab of Concrete. Mun. & Co. Eng. June, '26.

Standardization of Grade Separation Design. C. I. Melick. (From Michigan Roads and Pavements.)

Mun. & Co. Eng. June, '26.

Asphalt Macadam in Northeastern States. V. L. Ostrander. (Paper read before N. H. Good Roads Assoc.) Eng. & Contr. July, '26.

Los Angeles Builds Superhighway Through Cahuenga Pass.\* John C. Shaw. Eng. N. R. Indeed 1926.

Le Silicate, de Prise et de Durcissement des Matériaux Silicatés.\* (Silicating Roads. Phenomena of the Absorption of Silicate, of Setting and of the Hardening of the Siliceous Materials.) L. Geschwind. Gen. Civ. June 12, '26.

## d. Maintenance

Pipe Lines and the Highway. T. Stanford Griffin. Inst. Mun. & Co. Eng. June 22, '26.

Methods of Repairing Concrete Roads. A. H. Hinkle. (Paper read before Miss. Valley State
Highway Depts.) Eng. & Contr. July, '26.

e. Street Cleaning, Dust Prevention, Snow Removal

Le Déneigement des Routes. Tracteurs chasse-neige employés en France, sur la route des Alpes.\* (Snow Removal from Roads. Tractor Snow-Plows Used in France on the Alpine Highway.) Pierre Delattre. Gen. Civ. June 5, '26.

#### h. Vehicles, Automobiles, Traffic

Increasing Safety of State Highways. R. M. Morton. (Paper read before Calif. Supervisors' Assoc.) Mun. & Co. Eng. June, '26.

The Trend of Motor Vehicle Legislation. Russell Huffman. (Paper read before Nat'l Highway Traffic Assoc.) Eng. & Contr. July, '26.

Les Chaussées Speciales pour Automobiles ou "Autostrade" Italiennes.\* (The Italian Special Roads for Automobiles or "Autoroads.") Ch. Dantin. Gen. Civ. June 26, '26.

## E. Bridges, Viaducts, and Arches

#### b. Iron and Steel Bridges and Viaducts

Widening and Strengthening of Trent Bridge, Nottingham.\* A. E. Wheatley. Inst. Mun. & Co. Eng. June 22, '26. Chicago & Eastern Illinois Raises Bridge by a Novel Method.\* J. E. Bernhardt. Ry. Eng. &

Main. July, '26. Rigid Frame Girder Span in Mountain Highway Bridge.\* Eng. N. R. July 8, '26.

d. Concrete and Reinforced Concrete Bridges and Viaducts

Correlated Considerations in Design and Construction of Concrete Bridges.\* A. Burton Cohen. Am. C. Inst. Vol. 22, 1926.
Indeterminate Frame Bridges of the Bronx River Parkway and Westchester County Parks.\*
A. G. Hayden. Cornell C. E. June, '26.
Concrete Bridge Designed for Elastic Movement.\* Charles R. King. Eng. N. R. June 24, '26.
New Bridge Over the Thames at Caversham \* Engr. June 25 '26.

New Bridge Over the Thames at Caversham.\* Engr. June 25, '26. Concrete Girder Bridge Has Steel Pin Bearings.\* Eng. N. R. July 22, '26.

f. Suspension Bridges. Transfer Bridges
A 370-Foot Military Suspension Bridge.\* W. F. Davidson. Mil. Engr. July-Aug., '26.

h. Computations, Tests, etc.

Die Lage eines gegebenen Moments beim Balken auf zwei Stützen und die neuen Vorschriften der Reichsbahn.\* (The Position of a Given Moment for Beams on Two Supports and the New Regulations of the Government Rallway.) Landmann. Z. d. Bauver. June 23, '26.

## F. Inland Waters, Waterways

a. Natural Waterways (General Articles)

Improvement and Utilization of the Rivers of Illinois.\* W. G. Potter. West. Soc. Engrs. May. '26.

c. Regulation of Waterways-Volume of Discharge, Freshets, Floods, Soundings Hydraulics and Flood Control of the Illinois River.\* Murray Blanchard. West. Soc. Engrs. May, '26.

Auftreten und Verlauf des Rhein-Hochwassers 1925/1926.\* (Appearance and Subsidence of the 1925/1926 Rhine Flood.) P. May. Gesund. Ing. May 1, '26.

d. Diverting Dams, Locks, Lifts, Elevators, Inclined Planes

Engineering Features of the Illinois Waterway.\* L. D. Cornish and Walter M. Smith. West. Soc. Engrs. May, '26.

g. Consolidation of Banks, Leakage, etc.

Methods Employed in Stream Control.\* John R. Chamberlain. (From Public Roads.) Eng. & Contr. June 16, '26.

Large Ditch-Lining Job Done at Low Cost and High Speed.\* Eng. N. R. July 8, '26.

Versuche für die Dichtung der Dammstrecke des Mittellandskanals im Elbegeblet.\* (Experiments in Making Watertight the Diked Stretches of the Midland Canal in the Elbe District.)

Max Schinkel. Zeit. Bau. Pt. 4 (Ing.), '26.

h. Boats and Barges

Light-Weight Coal Barge Uses a Structural Street Framework. Eng. N. R. July 8, '26.

j. River and Lake Ports, Equipment

Buffalo: A Great American Lake and Canal Port.\* Dock & Harbour July, '26.

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### G. Maritime Works

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Die Flutwelle in Flussmündungen und Meeresbuchten.\* (Flood Waves in River Mouths and Creeks.) H. Krey. Zeit. Bau. Pt. 4 (Ing.), '26.

c. Vessels and Maritime Navigation, Lighthouses, Buoys, Various Signals

A Method of Calculating Ship Vibrations.\* George E. Pavlenko. Eng. June 25, '26.

Relative Efficiency of Turbine and Diesel Machinery.\* John Biles. (Paper read before Inst. Naval Archts.) Engr. June 25, '26.

Auxiliaries for Motor Vessels.\* John W. Morton and A. B. Newell. Mech. Eng. Serial beginning July, '26.

Estimating the Power Required for Ship Propulsion.\* E. L. Gayhart. Mech. Eng. July, '26.

Navigation Problems on the Danube.\* Brehon Somervell. Mil. Engr. July-Aug., '26.

Les Grands Phares des Cotes Hollandaises.\* (Lighthouses of the First Order on the Coast of Holland.) Gen. Civ. Jun 5, '26.

g. Dredges and Dredging, Force Pumps, Refloating and Removing Wrecks, Ice-Breakers Dredging Costs, Design, and Operation.\* William Gerig. Mil. Engr. July-Aug., '26.

h. Wharves, Mooring Buoys, Harbor Equipment

Additional Accommodation for the Meat Trade at the Royal Victoria Docks.\* Dock & Harbour July, '26.
Floating Grain Elevator for the Port of Bristol.\* Dock & Harbor July, '26.
The New Maritime Refrigerating Station at Bordeaux-Bassens.\* C. H. S. Tupholme. Dock & Harbour July, '26.
La Forme de Radous du Port de Sunderland (Angleterre).\* (The Graving-Dock of Sunderland Port, England.) P. Caufourier. Gen. Civ. June 26, '26.

1. Traction, Haulage, Towing, Mechanical Tractors

I. Traction, Haulage, Towing, Mechanical Tractors

The Demolition of the Harbour and Defence Works of Heligoland.\* Leopold Halliday Savile.

Inst. C. E. Vol. 220, 1924-25, Pt. 2.

The Port of Cadiz.\* Eugenio Suarez. Dock & Harbour July, '26.

Yokohoma Harbour.\* Kyoichi Aki. Dock & Harbour Serial beginning July, '26.

The Port of Antwerp.\* M. K. Bollengier. (Paper read before Inst. Naval Archts.) Eng.

July 2, '26; Engr. July 2.

Moles Built by Novel Method at Long Beach, Calift.\* Eng. N. R. July 8, '26.

Needed River and Harbor Improvement.\* W. M. Black. Mil. Engr. July-Aug., '26.

j. Dockyard Machinery and Shipyards, Drydocks

Steel Caissons for Drydock at Esquimalt.\* Norman A. Yarrow. Can. Engr. July 13, '26.

## H. Railroads. Street and Interurban Railways. Automobiles. Aeronautics

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1. General Articles
Conduct of Work. (From Bulletin Am. Ry. Eng. Assoc.) Int. Ry. Cong. Assoc. June, '26. Controlling Expenditures for Maintenance.\* B. D. Harsha Ry. Age June 19, '26. Compromise Arrangements Made in Railway Plans in Oregon.\* Eng. N. R. June 24, '26. Indian Railways Extended Over Historical Khyber Pass.\* A. G. Hall. Ry. Age July 10, '26. Die Staatseisenbahnen der Königreichs Siam.\* (The Government Railroads of the Kingdom of Siam.) F. Baltzer. Z. d. Bauver. June 2, '26.

3. Roadbed (Grading Construction Work)
Change of Volume of Grading Material and Ballast.\* H. E. Hale (From Bulletin 277, Am. Ry. Eng. Assoc.) Eng. & Contr. June 16, '26.

Illinois Central Installs Large Mileage of Track Drainage.\* P. T. Savage. Ry. Eng. & Main. July, '26.

Main. July, '26. 4. Track

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4. Track
Permanent Railroad Track. Frank N. Alfred. Am. C. Inst. Vol. 22, 1926.
Influence of Gyroscopic Action on the Necessary Super-elevation to be Provided on Curves.
F. Corini Int. Ry. Cong. Assoc. June, '26.
Initial Causes of Rail Breakages, and Methods Employed to Reduce the Number.
L. Sistek.
Int. Ry. Cong. Assoc. June, '26.
Rail Joint Practice on Foreign Railways.
Eng. N. R. July 15, '26.
New Second Track on Rock Island Produces Marked Savings.
Ry. Age July 17, '26.
Les Ruptures Accidentelles des Rails. Les Causes et les Remèdes.
(Accidental Breaking of Rails. Causes and Remedies.) Gen. Civ. June 19, '26.
5. Signals and Safety Apparatus
Automatic Signals on Single Track.
R. R. Supts.) Ry. Rev. July 10, '26.
6. Rolling Stock (Locomotives, Cars) Fuel
A Single-Phase 50-Cycle Electric Locomotive. Engr. June 11, '26.
Engine Operation Standardized by Pressure Gages.
Ry. Age June 19, '26.
Divided Basket Bunkers Save Ice.
Ry. Ry. Age June 19, '26.
A Contractor's Petrol Locomotive.
Engr. July 2, '26.
Geared Diesel Locomotive for the Russian State Railways.
Engr. July 9, '26.
Texas Type Locomotives Show Marked Fuel Economy.
Ry. Age July 17, '26.

Note sur la Construction en Série des Wagons-Tombereaux du Type Unifié aux Ateliers de Mulhouse.\* (Note on the Construction in Series of Dump Cars of Unified Type at the Mulhouse Shops.) M. J. Oudet. Rev. Gen. June, '26.

Note sur Une Nouvelle Boite à Billes pour Matériel Roulant de Chemins de Fer et Tramways.\* (Note on a New Ball Bearing for Railroad and Tramway Rolling Stock.) Rev. Gen. June, '26.

ways.\* (Note on a New Ball Bearing for Railroad and Tramway Rolling Stock.) Rev. Gen. June, '26.
Locomotive Compound à Quatre Essieux Couplés de la Compagnie des Chemins de Fer P.-L.-M.\* (Compound Locometive with Four Coupled Axles of the P.-L.-M. Railroad Company.) Gen. Civ. June 12, '26.
Le Freinage Continu des Trains de Marchandises.\* (Continuous Braking of Freight Trains.)
J. Netter. Gen. Civ. June 26, '26.
7. Use of Electricity
Steam Railway Electrification. W. B. Continuous Braking of Freight Trains.)

Steam Railway Electrification. W. B. Spellmire. Engrs. Soc. W. Pa. May, '26.
The High-Speed Circuit Breaker in Railway Feeder Networks.\* J. W. McNairy. A. I. E. E.
July, '26. Regenerative Braking for Direct-Current Locomotives.\* A. Bredenberg, Jr. A. I. E. E.

Regenerative Braking for Direct-Current Locomotives.\* A. Bredenberg, Jr. A. I. E. July, '26.
Bombay Suburban Line Electrifies.\* Arthur L. Stead. Ry. Rev. July 10, '26.
8. Stations, Terminals, Engine Houses, Shops
Illinois Central Moves Long Platforms 39 ft. in 10 Hours.\* Ry. Eng. & Main. July, '26.
New Station Facilities Provided at Baton Rouge, La.\* Ry. Age July 3, '26.
Ottawa Terminal Freight Yard on Pere Marquette Ry.\* Eng. N. R. July 8, '26.
Union Station on the Southern Ry. at Greensboro, N. C.\* Eng. N. R. July 22, '26.
9. Technical and Commercial Use.
Saving 100 000 Car Days a Year.\* Geo. E. Boyd. Ry. Rev. June 26, '26.

#### d. Street Railways, Elevated Railways, Subways

General Articles
 New York's Third Subway Under Construction.\* T. L. MacBean. Eng. N. R. July 8, '26.

#### e. Automobiles

Internal Combustion Engine Automobiles
 Truck and Bus Service Station at Long Island City.\* Elwyn E. Seelye. Eng. N. R. July 15, '26.

Les Autobus Pétroléo-Electriques à Huit Roues du Chicago and Alton Railroad.\* (Eight-wheeled Petroleum-Electric Autobuses of the Chicago and Alton Railroad.) Gen. Civ. June 19, '26.

Zur Garagenfrage.\* (On the Garage Question.) Georg Müller. Z. d. Bauver. June 9, '26.

## I. Municipal Water-Works. Agricultural Engineering. Irrigation

a. General Articles

Bristol Waterworks: Cheddar Supply. Alexander McCulloch Paterson. Inst. C. E. Vol. 220. 1924-25, Pt. 2.
The Water-Supply of the City of Aberdeen. George Mitchell. Inst. C. E. Vol. 220, 1924-25, Pt. 2.

Water Works Extension, Hamilton, Ont. (From Report prepared by W. L. McFaul.) Can.

Engr. June 22, '26.
The Illinois Central's Water Supply. C. R. Knowles. Am. W. W. Assoc. July, '26.

b. Hydrology, Water Resources

Well Sinking and Tests for the City of Los Angeles.\* George R. Shuey. Eng. N. R. July,

1, '26. e Versinkungserscheinungen an der obereb Donau als zwischenstaatliche Wasserwirtschaftsund Wasserrechts-Frage.\* (The Subsidence Phenomena on the Upper Danube as in International Question of Water Supply and Water Rights.) Heinrich Heiser. Zeit. Bau. Serial beginning Pt. 4 (Ing.), '26.

c. Dams and Reservoirs

Measurements of Discharge Over a Rock-faced Dam.\* Stephen Mitchel Dixon and Frederic William Macaulay. Inst. C. E. Vol. 220, 1924-25, Pt. 2.

Pipe Lines and the Highway. T. Stanford Griffin. Inst. Mun. & Co. Eng. June 22, '26.

Tests in Growing Vegetation on Gravel Dams.\* C. H. Eiffert. Eng. N. R. July 8, '26.

Gewölbewirkungen bei teilweise bogenformigen Talsperren.\* (Vault Effect in Dams Arched in Part.) Rich. Sonntag. Z. d. Bauver. June 6, '26.

d. Analysis and Purification of Water

Filtration Plant at Huntingdon, Quebec.\* W. B. McLean. Can. Engr. June 22, '26.

Double Chlorination. C. R. Cox. Am. W. W. Assoc. July, '26.

Partial Evaporation of Trade Waste Eliminates Taste in Water.\* Eng. N. R. July 15, '26.

Zerlegung und Reinigung von Flüssigkeiten durch Schleuderkraft.\* (Decomposition and Purification of Liquids by Means of Centrifugal Force.) Carl Schmitz. Ver. deu. Ing. June 5, '26.

## e. Distribution of Water

Laying Intake Through Earth Dike Under Service.\* Eng. N. R. June 24, '26, Pipe Line Inlet Air Valves. J. W. Ledoux. Eng. & Contr. (Water Works.) July, '26. Strength Properties of Cast Iron Pipe Made by Different Processes as Found by Tests.\* Arthur N. Talbot. Am. W. W. Assoc. July, '26.

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The Walton Filters and Pumping Station of the Metropolitan Water Board.\* Eng. Serial beginning July 2, '26.

Revamping the Corpus Christi Water-Works System.\* Eng. N. R. Eng. July 22, '26.

Making Electrically Welded Pipe for East Bay Conduit.\* Eng. N. R. July 22, '26.

Theoretical Energy Losses in Intersecting Pipes.\* J. C. Stevens. Eng. N. R. July 22, '26.

Salt Content of Colorado River Increased in 25 Years.\* Carl S. Scofield. Eng. N. R. July, '26.
Die Ausfuhrung der Gothaer Trinkwasserzuleitung aus Holz.\* (The Execution of the Gotha Drinking Water Main in Wood.) Schubert. Gesund. Ing. May 15, '26.

f. Drainage of Land

Abänderungs- und Ergänzungs-Vorschläge zu den technischen Vorschriften für den Bau und Betrieb von Grundstücksentwässerungen.\* (Proposed Modifications and Supplements to the Technical Directions for the Construction and Operation of Land Drainage Plants.) Werken. Gesund. Ing., June 5, '26.

## J. Sewerage. Sewage and Refuse Disposal

a. Sewers and Drains

Construction Methods on 3 450 000 Relief Sewer.\* Frank W. Skinner. Eng. & Contr. June 16, '26.

b. Sewage Disposal, Purification

Stream Pollution Studies in Maryland. (From Report by Abel Wolman.) Mun. & Co. Eng. June, '26.

The Biology of Polluted Water. W. C. Purdy. Am. W. W. Assoc. July, '26.
The Pollution of Las Animas River.\* Dana E. Kepner and Paul S. Fox. Am. W. W. Assoc.

July, '26.
Industrial Wastes Treatment. T. C. Schaetzle and S. T. Powell. (From Maryland State Dept. of Health Bulletin.) Eng. & Contr. (Water Works.) July, '26.
Activated-Studge Plant for Three Small California Cities.\* F. M. Veatch. Eng. N. R.

Activated-Sludge Flant for Three Small California Cities. F. M. Veatch. Eng. N. R. July 1, 26.

Die Reinigung anilinfarbenhaltiger Abwässer.\* (Purification of Waste Water Containing Aniline Dye.) Walther Friese and Hellmuth Beil. Gesund. Ing. May 8, 25.

Zerlegung und Reinigung von Flüssigkeiten durch Schleuderkraft.\* (Decomposition and Purification of Liquids by Means of Centrifugal Force.) Carl Schmitz. Ver. deu. Ing. June 5, '26.

Beitrag zur Erforschung der Vorgänge in zweistöckigen Kläranlagen im Emschergebiet.\*

(Contribution to the Investigation of the Process in Two-Story Clarification Plants in the Emscher District.) H. Blunk. Gesund. Ing. June 25, '26.

## K. Heat Engines

a. Steam Engines, Boilers

The Large Water-Tube Boiler.\* Philip Warwick Robson. Inst. C. E. Vol. 220, 1924-5, Pt. 2. The Problem of Steam Boiler Corrosion.\* Frank N. Speller. Am. W. W. Assoc. July, '26. Boiler Water Purification: Natural Waters and Their Impurities.\* Sheppard T. Powell. Power Serial beginning July 6, '26.

c. Gas and Oil Engines

Diesel Engines.\* E. V. Buchanan. Eng. Inst. Can. July, '26.

## L. Electricity

b. Distribution and Transmission of Electricity

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2. Magneto and Dynamo. Electric Machines
Lightning and Other Experiences with 132-K.v.-Steel Tower Transmission Lines, and Its
Bearing on Tower-Line Design from the Continuity of Service Standpoint.\* M. L. Sindeband and P. Sporn. A. I. E. E. July, '26.
Leglerter Aluminiumdraht "Drahtleglerung 3" als Ersatz für Reinaluminium- und Stahlaluminium-Freileitungen.\* ("Wire-Alloy 3" Light Aluminium Wire as a Substitute for
Pure Aluminium and Steel-Aluminium Bare Conductors.) Schw. Bauz. June 26, '26.

3. Distribution and Wiring of Electricity
An Electrical Distribution System at a Steel Works.\* Engr. June 11, '26.
6. Safety of Electric Distribution Systems, Laws and Regulations
Safety and Construction Standards for Transmission Lines. James S. Martin. Engrs. Soc.
W. Pa. May, '26.

### c. Electric Lighting

Modern Principles of Good Lighting. R. M. Hutton. Can. Engr. July 6, '26.

d. Mechanical Uses of Electricity

Servomotors, Hoists, Elevators, Handling Machinery
High-Speed Elevators Operated by Signal Control.\* F. A. Annett. Power July 13, '26.

#### f. Signals and Communication

The Development of the Outside Plant of the Bell Telephone Company of Canada. W. H. Winter. Eng. Inst. Can. July. '26.

## M. Architecture

g. Other Buildings

The New Madison Square Garden.\* (From Architecture and Building.) Eng. & Contr.

\_ June 23, '26.

June 23, '26.

Zur Entstehungsgeschichte der Moscheen.\* (On the History of the Origin of Mosques.)

Wachtsmuth. Z. d. Bauver. June 2, '26.

Die Verwertung der Erzeugungsstätten eines stillgelegten Gaswerks für eine Turnhalle und eine Badeanstalt.\* (Utilization of the Generator Room of an Idle Gasworks for a Gymnasium and Bath House.) Kayser. Gesund. Ing. June 12, '26.

i. Fire Protection

Earthquake Proof Construction. H. M. Hadley. Am. C. Inst. Vol. 22, 1926.
Earthquakes and Their Effect on Buildings. Arthur L. Day. Am. C. Inst. Vol. 22, 1926.

## O. Administration. Legislation. Economics. Statistics

e. Legislation—Questions Concerning Wages and Working Conditions Influence of Personnel in Industry. R. A. C. Henry. Eng. Inst. Can. July, '26.

g. Engineering Education

Progress and Opportunities of Agricultural Engineering.\* Q. C. Ayres. Eng. N. R. June 24, '26.
The Relation of the University to the Engineering Profession. R. W. Brock. Eng. Inst. Can. July, '26.

## Q. Surveying and Geodesy

The Geodetic and Topographic Survey of Pittsburgh and Allegheny County.\* U. N. Arthur and R. H. Randall. Engrs. Soc. W. Pa. Apr., '26. Mapping with Third Asiastic Expedition.\* Frederic B. Butler. Mil. Engr. July-Aug., '26. Study of Search-Light Triangulation.\* James W. Bagley. Mil. Engr. July-Aug., '26. The United States Naval Observatory.\* Edwin T. Pollock. Mil. Engr. July-Aug., '26.

## S. City Planning

The Railway and the City Plan. C. F. Loweth. (Abstract of paper read before Nat'l Conference on City Planning.) Eng. & Contr. June 16, '26.

Grade Separation in Relation to City Planning.\* John P. Hallihan. Ry. Age June 26, '26. Regional Town Planning. E. W. Bostock. Inst. Mun. & Co. Eng. June 22, '26. Regional Town Planning. A. H. Elliott. Inst. Mun. & Co. Eng. June 22, '26. Housing Development at Riverbend, Que.\* C. N. Shanley. Can. Engr. June 29, '26. Wohnungszählung und Wohnungsnot.\* (Census of Dwellings and Shortage of Dwellings.) Höpfner. Tech. Gemein. Mar. 20, '26.

L. Electricity

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## Employment Service

The Engineering Societies Employment Service is under the joint management of the National Societies of Civil, Mining, Mechanical, and Electrical Engineers. A Chicago office is maintained in co-operation with the Western Society of Engineers, and a San Francisco office, in co-operation with the Engineers' Club of San Francisco and the California Section of the American Chemical Society. The Service is available only to the several memberships and is maintained by contributions from the Societies and their individual members who are directly benefited.

Officers.—Eastern Office, 33 West 39th Street, New York, N. Y., Walter V. Brown, Manager; Chicago Office, 53 West Jackson Boulevard, Room 1736, Chicago, Ill., A. Krauser, Manager; and San Francisco Office, 57 Post Street, Room 715, San Francisco, Calif., Newton D. Cook, Manager.

Men Available.—Under this heading, brief announcements will be published without charge. These announcements will not be repeated, except on request received after an interval of one month. Names and records will remain in the active files of the Service for a period of three months, and are renewable on request. Notices for *Proceedings* should be addressed to Employment Service, 33 West 39th Street, New York, N. Y., and should be received prior to the first of the month.

Opportunities.—A Bulletin of engineering positions available is published weekly and may be obtained by members of the Societies concerned at a subscription rate of \$3 per quarter, or \$10 per annum, payable in advance. Positions which are not filled promptly as a result of publication in the Bulletin, may be announced herein.

Voluntary Contributions.—Members obtaining positions through the medium of this Service are invited to co-operate with the Societies in the financing of the work by nominal contributions made within thirty days after placement, on the basis of \$10 for all positions paying a salary of \$2000 or less per annum; \$10 plus 1% of all amounts in excess of \$2 000 per annum; temporary positions (of one month or less), 3% of total salary received. The income contributed by the members, together with the finances appropriated by the four Societies named, will be sufficient, it is hoped, not only to maintain but to increase and extend the service.

Replies to Announcements.—Replies to announcements published herein, or in the Bulletin, should be addressed to the key number indicated in each case, with a two-cent stamp attached for re-forwarding, and forwarded to the Employment Service at the address given. Replies received by the Service after the positions to which they refer have been filled, will not be forwarded.

SALES ENGINEER, Assoc. M. Am. Soc. C. E. Fifteen years' experience as civil and construction engineer mostly in the Northwest. Captain of Engineers during World War. Purchasing agent and sales engineer since the war. Thoroughly acquainted and prefer work in State of Washington. Have been calling on architects, builders, and millmen the past three years. B-3932-7-A-9.

RADUATE CIVIL ENGINEER, Assoc. M. Am. Soc. C. E.; age 32; married. Eleven years' field and office experience as GRADUATE Eleven years' field and omce experience as engineer and assistant superintendent on reinforced concrete buildings, housing projects, streets, and sewers; also experienced on installation of mechanical equipment and valuation work. Available for responsible position on about one month's notice. B-7815-4-A-39.

existing the of \$1 per quartery or \$13 per manual perceible to always.

Foliation of this Service are invited to manager with the Service at the

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- CIVIL ENGINEER, M. Am. Soc. C. E.; age 38; married. Six years, Kentucky Highway Department, as division engineer and executive secretary, State Highway Department. Four years, chief engineer of two short line railroads. Ten years with leading railroad and mining corporation. Location, anywhere. Now available. C-1665.
- ASSOC. M. AM. SOC. C. E., Clemson College, S. C., B. S. in C. E. 1921; age 26; married. Now Assistant Engineer, Municipal Corporation in West Indies. Desires to return to States to some permanent position having good prospects. Hydraulic or railroad work preferred with engineering or construction firm. Has had experience on construction of hydro-electric works and on railroad location. Locality preferred either Southern or Western States but not essential. Available October 1, 1926. C-1674.
- MECHANICAL ENGINEER (Graduate), and Affiliate Am. Soc. C. E.; age 32. Long experience in mechanical work, drawing and machinery. Thirty months' experience

- in construction work on dams, highways, surveying, and mapping. Can master well correspondence and reports in English and Portuguese. At present, Professor in Agricultural and Engineering College in Brazil. Preferable location in Southern State of Brazil. Available on reasonable notice. C-1678.
- notice. C-1678.

  CIVIL ENGINEER, M. Am. Soc. C. E. Superintendent of Construction, Q. M. Dept., U. S. Army, for sewerage system, commissary store house, and gymnasium as civilian employee; Chief Engineer in charge of location, design, construction, operation of extensive irrigation systems; Consulting Engineer for various large irrigation and drainage systems; four years, Member of Board of Water Engineers for State of Texas; four years as Chief of Party on location, and Engineer in charge of construction, of highways in Central America; one year, General Superintendent, National Railways, Republic of Panama. Registered engineer in Florida. Twenty years Latin-American contact. Speaks Spanish. In good health; will go anywhere. C-1712.

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## Membership

(From June 30, to August 3, 1926)
Additions

## Additions

Asse, dor Fleid Epres Hall sat Sun Luconics.		Date	
ADAMS, Madison Hilliard. Gunter Hotel, San Antonio, Tex  AJWANI, Hashu. No. II Begari Remodelling, Sukkur, Sind, India.  ALCORN, Manford Craig. Gilfelds, Calif  ALLMOND, David Robinson, Jr. With Carr & McFadden, Inc.,	Jun. Jun. Jun.	July 13 Feb. 25 July 13	2, 1926 5, 1924 2, 1926
West Palm Beach, Fla.  ARMSTRONG, Roger Wellington. Div. Engr Board of Water Supply, New York (Res., 172 Clinton St., Brooklyn), N. Y. ATKINSON, Thomas Wilson. Prof., Elec. Eng., Dean, Coll. of Eng. and Director, Eng. Experiment Station, Louisiana State Univ L. S. U. Campus, Baton Rouge, La.	Jun. Assoc. M. M.	July 1: Nov. July 1:	2, 1926 8, 1909 2, 1926
	M.	June	7, 1926
BAILEY, Theron Pierce. Junior Engr., U. S. Engr. Dept., U. S. Engr. Office, Brookport, Ill.  BAYTER Samuel Serson. With Dept. of Public Works (Res. 1420)	Jun.	July 1	2, 1926
Engr. Office, Brookport, III.  BAXTER, Samuel Serson. With Dept. of Public Works (Res., 1420 East Columbia Ave.), Philadelphia, Pa.  BAYLOR, Robert Emmet. Balboa, Canal Zone.  BEATTY, John David. Engr., Portland Cement Assoc. (Res., 521	Jun. Assoc. M.	July 1	dana.
South Lang Ave.) Pittsburgh, Pa.  BENDER, Homer Charles. Chf. Draftsman, Washington Water Power Co., South 1106 F St., Spokane, Wash		June July 1	1, 1920 2, 1926
Kankakee, Ill	Assoc. M.	Mar.	2, 1926 9, 1920
BILLINGS, Charles Newport. 279 Pierce St., Lafayette, La	M. Jun. Assoc. M. M.	July 1 Aug. 3 July 1	2, 1926 2, 1926 1, 1909 2, 1926
Mines, 506 Custom House, San Francisco, Calif	Assoc. M.	July 1	2, 1926
York, N. Y.  BROWN, Charles Ellsworth. Draftsman and Engr., Burns & McDonnell Eng. Co., 402 Interstate Bldg., Kansas City, Mo  BROWN, Jesse Fred. Office Engr., Black & Veatch, 701 Mutual	Assoc. M.	July 1	2, 1926
BROWN, Jesse Fred. Office Engr., Black & Veatch, 701 Mutual Bldg., Kansas City, Mo.	Assoc. M. M.	July 1	2, 1926
BIG., Kansas City, Mo.  BRYAN, Richard Pearson, Res. Engr., Fred H. Tibbetts, 1320 Alaska Commercial Bidg., San Francisco, Calli  BURG, Joseph William. 1667 Centre St., Newton Highlands, Mass. BURGESS, Harry Holdridge. Constr. Engr., Jacobson Brothers, 410 Columbia Bidg. (Res., 4124 Gladstone St.), Duluth, Minn. BURROUGHS, Laurence Russell. Williamstown, Ky.	Jun. Assoc. M. Jun.	June	8, 1922 7, 1926 2, 1926
410 Columbia Bldg. (Res., 4124 Gladstone St.), Duluth, Minn. BURROUGHS, Laurence Russell. Williamstown, Ky	M. Jun.		7, <b>192</b> 6 5, 1926
CAMLIN, William John. Mgr Concrete Forms Dept., The Building Products Co., Box 416, Toledo, Ohio	Jun. Assoc. M. M.	June 1	12, 1919 19, 1922
CARPENTER Clarence Edson Engr M of W I P T Co :	Assoc. M.	July 1	12, 1926 10, 1907 12, 1926 16, 1919
2 Birch Rd., Yonkers, N. Y. CLARK, Frank Joshua. Civ. Engr., U. S. Engr. Office, Masonic Temple Bidg., Jacksonville, Fla. CLOWARD, Davis Jones. Chf. Engr., Northern Ry. and United	Assoc, M. M.	June 1	6, 1919 12, 1926
CONSOER, George Otto. Secv. and Chf. Designing Engr., Consoer.	Assoc. M.	June	7, 1926
Older & Quinlan, 1739 Marquette Bldg., Chicago, Ill	Assoc. M.	The second	ALL STATE
burgh, Pa. CUNNINGHAM, Fred Gaston. Civ. Engr., Fuller & McClintock, 170 Broadway, New York, N. Y.	Jun. Assoc. M. M.	. Mar.	12, 1926 7, 1921 12, 1926
DEAKYNE, Herbert. Brig. Gen., U. S. A.; Asst. Chf. of Engrs., U. S. A., 2802 Munitions Bldg., Washington, D. C	M. Jun. Assoc. M M.	July Mar.	12, 1926 12, 1926 11, 1919 12, 1926
FORESTER, Don Montell. Box 155, Jackson, Miss FOUHY, Michael Augustin. Structural Engr., Weiskopf & Pickworth, 45 West 45th St., New York, N. Y	Assoc, M	Mar. Sept. July	15, 1926 9, 1919 12, 1926
GARDINER, John Haines. Asst. Engr., U. S. Geological Survey, University Station, Box 162, Tucson, Ariz		Man	00 1000
COLDSMITH Samuel Tilden. Junior Engr. Roard of Transports.	Jun.	July	12, 1926
tion, New York (Res., 115 South 116th St., Flushing), N. Y	Assoc. M	. July	12, 1926

MEMBERSHIP (Continued)		Mem	te of bership.
GREENSFELDER, Albert Preston. Secy., Fruin-Colnon Contr. Co., 502 Merchants Laclede Bldg., St. Louis, Mo	Jun. Assoc. M. M.	May May July	3, 1904 2, 1906 12, 1926
GRUETZMACHER, Raymond Dewey. Asst. Engr., Board of Public Land Commrs. (Res., 203 Juneau Ave., Apartment 407), Mil-	Jun.		12, 1926
waukee, Wis Aget to Florid Flory City of Con Antonio	oun.	July	12, 1020
HALL, Walter William. Asst. to Field Engr., City of San Antonio, Flood Prevention Dept., 115 Montclair Ave., San Antonio, Tex. HARDIN, Eugene Albert. Designing Engr., Dept. of Water Supply	Assoc. M.	July	12, 1926
(Res., 9303 East Jefferson Ave.), Detroit Mich	Assoc. M.	July	12, 1926
Calif. HARPER, Paul Albert. Insp. and Asst. Engr., Associated Oil Co.	Jun.		12, 1926
HART, Richard Willing Byrd. City Mgr., Box 51, Lynchburg, (	Jun. Assoc. M.	Jan.	
Va	M. Jun.	May	12, 1926 28, 1923
282 Center St.), Nutley, N. J	Assoc. M.	July	12, 1926
Transit (Res., 2425 North 29th St.), Philadelphia, Pa HEWES, Frederick Roy, Lieut., C. E. C., U. S. N.: Asst. to Dist.	Jun.	July	12, 1926
Public Works Officer, Navy Yard, Pearl Harbor, Hawali HINES, Le Roy Okeson, 20 York Apartments, West York St.	Assoc. M.		7, 1926
HARTLEY, George Russell. Constr. Engr., Town of Nutley (Res., 282 Center St.), Nutley, N. J.  HENKENSIEFKEN, Fredrick. Junior Draftsman, Dept. of City Transit (Res., 2425 North 29th St.), Philadelphia, Pa.  HEWES, Frederick Roy. Lieut., C. E. C. U. S. N.; Asst. to Dist. Public Works Officer, Navy Yard, Pearl Harbor, Hawaii HINES, Le Roy Okeson. 20 York Apartments, West, York St., Norfolk, Va.  HOBBS, Harold Wayne. Instr., Civ. Eng. and Drawing, L. C. Smith Coll. of Applied Science, Syracuse Univ. (Res., 210 Walnut Pl.), Syracuse, N. Y.  HORNLEIN, Hugo Garvin. Eng. Asst., Office of W. L. Huber (Res., 2728 Green St.), San Francisco, Calif.  HUSSEY, Laurence. Box 44, Palos Verdes Estates, Redondo Beach., Calif.	M.	Mar.	15, 1926
Coll. of Applied Science, Syracuse Univ. (Res., 210 Wainut Pl.), Syracuse, N. Y.			12, 1926
(Res., 2728 Green St.), San Francisco, Calif	Jun. Assoc. M.	July	12, 1926
10.10.10.10.10.10.10.10.10.10.10.10.10.1	M.	July	12, 1926
JOHNSON, Rex Phillips. With Detroit Edison Co., 1244 Philadel- phia Ave., West, Detroit, Mich	Assoc. M.	THE PARTY	to Attorney .
JORDAN, Leonard Crouch. Structural Engr., Otis Elevator Co., New York (Res., 62 Siwanoy Ave., New Rochelle), N. Y	Assoc, M.	Sept.	
KERANEN, John Elmer. 8220 Kenwood Ave., Chicago, Ill KNIGHT, Gerald Wilson. San Engr., 147 Prospect St. (Res.,) 127 Ayerigg Ave.), Passaic, N. J	Jun. Assoc. M. M.	April April July	12, 1926 7, 1918 12, 1926
Singapore, Straits Settlements	Assoc. M.	mar.	15, 1926
Singapore, Straits Settlements.  LANCASTER, George Graham. Res. Engr., The C. & O. Ry., Passenger Station C. & O. Ry., Covington, Ky  LANCASTER, William Carrington. Chf. Engr., State Transit	Assoc. M	Oct.	12, 192
LEFERVRE William Clayton State Fig. Arizona Highway Dont	M.	July	12, 1920
(Res., 426 Willow Ave.), Phoenix, Ariz	M	Tuly	12, 192 12, 192
(Res., 426 Willow Ave.), Phenix, Ariz		July	6, 192
LINDSAY, William Steen, Jr. Res. Engr., J. E. Sirrine & Co., Greenville, S. C  LOUCHHEIM, William Sandel. 135 South 17th St., Philadelphia, Pa	Tun	JEST 5	7, 192
LUCAS, Albert Frederick, Chf. Engr., Detroit Steel & Conveyor	emisol i	Egnt.	JULA III
Co. (Res., 121 Eastlawn Ave.), Detroit, Mich		COLUM	12, 192 7, 192
McGEHEE, Charles Burnam, Engr with Robert S Fiske 1421	ni O var	S. Ger	3005600
Healey Bldg., Atlanta, Ga.  MIKELL, Waring. 2112 McDowell St., The Hill, Augusta, Ga  MITTAG, Albert Alfred. Care, R. W. Hebard & Co., Inc., San	Jun. Jun.	June	7, 192 7, 192
MONCRIEF. James Basil. Draftsman, Cerro de Pasco Copper Cor-	Jun.	June	7, 192
MONK Persy Shelley Div From of Maintenance Purcey	Jun.	June	7, 192
of Bridges, Dept. of Public Works, 332 City-County Bidg., Pittsburgh, Pa. MURPHY, Lindon John. Asst. Engr., Caldwell Eng. Co., 205 North Pine St. Jacksonville, III MYERS, Richard Austin. Engr., South-Eastern Underwriters Assoc., Atlanta, Ga.	Assoc. M	. Mar.	30, 191 13, 191 112; 192
MURPHY, Lindon John. Asst. Engr., Caldwell Eng. Co., 205 North	Chrke	Tune!	7, 192
MYERS, Richard Austin. Engr., South-Eastern Underwriters Assoc., Atlanta, Ga.	Assoc. M	. Nov.	25, 191 12, 192
NOETZLI, Fred Adolph. Cons. Hydr. Engr., 928 Central Bldg., Los Angeles, Calif.	Assoc. M M.	. Nov.	25, 191 12, 192
O'BRIEN, Morrough Parker. 602 Tennyson Pl., Toledo, Ohlo OLSON, Kenneth Miles. Draftsman, C. M. & St. P. Ry. (Res.,	Jun.		12, 192
	Jun.	July	12, 192
		Test	. 10 100
ORTON, James Wilbur. Designer Engr., Board of Water Supply (Res., 485 Manistique Ave.), Detroit, Mich. O'SHEA, Daniel George. Draftsman, Washington Water Power Co. (Res., 933 West 17th Ave.), Spokane, Wash.	Assoc. M	i. July	12, 192

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MEMBERSHIP (Continued)		Date	
PALM, Albert Charles, Asst. Engr., San. Dist. of Chicago (Res.,		Member	
5354 North Christiania Ave.), Chicago, Ill	Assoc. M.	Ton 19	
PLOGSTED, Walter John. Managing Director, Metropolitan	Jun. Jun.	Jan. 18, Oct. 6,	1903
Vickers GRS., Ltd., 9 Kingsway, London W. C., 2, England.	Assoc. M. M.	July 12,	1909 1926
PLYLER, Dwight. Asst. Supt. of Constr., Hardaway Contr. Co., Inc., Baxley, Ga	Jun. Jun.	June 7, April 12,	1926 1926
RANDS, Harold Alva. Engr., Hammon Consolidated Gold Fields, ]	Assoc. M.	April 2,	1912
Box 466, Nome, Alaska	M. Jun.	June 7,	1925 1926
ROSS, Charles Morrison, With Humphreys Corporation, 411	Assoc. M.	June 7,	1926
Mason Bidg., Houston, Tex	Jun.	June 7,	1926
Pittsburgh, Pa RUMBLE, George Bertyl. Draftsman Insp., Albright & Mebus; 142	Assoc. M.	July 12,	1926
Harrison Ave., Glenside, Pa	Jun.	July 12,	1926
SCHAAK, Frank Augustus, Jr. Project Engr., State Highway Comm. (Res., 452 East 55th St.), Kansas City, Mo	Assoc. M.	June 7	1926
SCHNEIDER, Eugene Henry. Designing Engr. with Herbert S. Crocker, 734 Downing St., Denver, Colo	M.	July 12,	
SCHREIBER, Harry William. Care, Granite Constr. Co., Watson-ville, Calif.		June 7	
ville, Calif SHERMAN, Edward Pressley. Sales Engr., Gen. Fireproofing Bldg. Products, 10 North Clark St. (Res., 5543 Glenwood Ave.),			
Chicago, Ill. SHERNOW, Samuel. Ave., New York (Res., 9601 Franklin Ave., Ozone Park),	Jun.	July 12	, 1926
N. Y SHOEMAKER, Edwyn Leibfreed. Structural Designer, Wm. Steele	Assoc. M.	Mar. 15	1926
& Sons Co. (Res., 5513 Marshall St.), Philadelphia, Pa STEUBER, Milton Carl. Pres. and Gen. Mgr., National Eng.	Assoc. M.	July 12	, 1926
& Sons Co. (Res., 5513 Marshall St.), Philadelphia, Pa STEUBER, Milton Carl. Pres. and Gen. Mgr., National Eng. Service, Inc. (Res., 1213 La Claire Ave.), Pittsburgh, Pa. STILL, Joseph Francis. Cons. Structural Engr., First National & Bank Bldg., St. Petersburg, Fla	Assoc. M. Assoc. M. M.	June 7 Nov. 21 July 12	1921
THAXTON, Rufus Carroll. With Flood Prevention Dept., City of San Antonio (Res., 5603 Broadway), San Antonio, Tex THOMPSON, John Walter. 4247 Walnut St., Philadelphia, Pa. TONNELIER, John Edmund. With Jones & Laughlin Steel Corpo-	Jun.	Mar. 15 July 12	, 1926
ration (Res., 5865 Alderson St.), Pittsburgh, Pa	M. Assoc. M.	July 12 July 12	
VAN VALKENBURGH, Harold Teunis. With Texas Power & Light Co., 739 Centre St., Dallas, Tex	Jun.	July 12	, 1926
VERMEULE, Cornelius Clarkson, Jr. Asst. Engr., C. C. Vermeule, 38 Park Row, New York, N. Y	Assoc, M.	July 12	, 1926
WALLACE, Galen Anson. 45 Woodford Ave., Owensboro, Ky	Jun.	July 12	, 1926
WALSH, Joseph Vincent. Examiner, Bureau of Valuation, Inter- state Commerce Comm., 618 Hurley Wright Bldg., Washington, D. C.	Assoc. M. M.	Dec. 15 July 12	
D. C. WRIGHT, Jonathan Garrard. Asst. Engr., Henry D. Dewell, 55 New Montgomery St., San Francisco (Res., 72 Coventry Rd., Berkeley), Calif.	Jun. Assoc. M.	June 19 June 7	
YOUNG, Truman Paddack. 1901 First National Bank Bldg., Richmond, Va	Jun.	July 12	1926
YOUNT, William Ray. Engr. and Supt. of Constr., Frank Hill Smith, Inc. (Res., 633 Kenilworth Ave.), Dayton, Ohlo		June 7	
ZABAT, Manuel Valmonte. Junior Asst. Engr., State Bureau of Highways (Res., 542 West 124th St.), New York, N. Y			
ZEIGLER Frederick Claude Location Engr. Westchester County l		July 12	
San. Sewer Comm., 192 Martine Ave. (Res., 101 Harding Ave.), White Plains, N. Y.	M.	June 1 July 12	, 1926
Resignations			
Members		Date	
CUDEBEC, Albert Bennett		Date of Resignal July 12	tion.
Associate Members			,
FISHER, Ward Herbert		July 12	. 1926

## Deaths

CHAPMAN, Johnson. Elected Associate Member, October 11, 1920; Member, October 15, 1923; died April 8, 1926.

FISHER, Samuel Brownlee. Elected Member, October 7, 1903; died July 9, 1926.

FOWLE, Bernard Hooe, Jr. Elected Associate Member, July 6, 1920; died April 23, 1926.

GALE, Clarence Stephens. Elected Associate Member, June 11, 1917; died July 3, 1926.

GESTERLE, Harry Adolph, Jr. Elected Associate Member, July 6, 1925; died May 24, 1926.

SMITH, Oberlin. Elected Member, September 3, 1884; died July 18, 1926.

SOUTHGATE John McKnight. Elected Associate Member, July 11, 1921; died July 6, 1925.

SUTTON, Frank. Elected Member, October 3, 1906; died July 22, 1926.

WALDO, Mark Albigence. Elected Member, May 2, 1900; died July 16, 1926.

## Total Membership of the Society, August 3, 1926

Members Associate													-	_	2 7		
Corporate	Me	m	b	er	s										-	10	549
Honorary	Me	m	b	er	S												15
Juniors .																	961
Affiliates																	149
Fellows .																	8
		T	01	al												11	682

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